

IN THE CLAIMS:

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Original) In a communication system, a method for determining a data rate for reverse link communication from a mobile station to a base station comprising:

determining packets of data for transmission from the mobile station for a number of communication services;

determining a transmission deadline of each of said packets of data;

arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline;

determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the transmission deadline for each of said packets of data.

2. (Original) The method as recited in claim 1 further comprising:

communicating said data rate from said mobile station to said base station.

3. (Original) The method as recited in claim 1 further comprising:

determining duration for use of said determined data rate for transmissions of the packets of data based on the arrangement of said packets of data in said queue.

4. (Original) The method as recited in claim 3 further comprising:

communicating said determined duration from said mobile station to said base station.

5. (Original) The method as recited in claim 1 further comprising:

determining whether available resources allows for allocation at said base station for transmission from said mobile station at said data rate.

6. (Original) The method as recited in claim 5 further comprising:

indicating a congestion level alert to said mobile station when said determining available resources disallow for allocation at said base station for transmission from said mobile station at said data rate.

7. (Original) The method as recited in claim 6 further comprising:

dropping at least a packet of data of said packets of data in said queue to determine a new queue of packets of data;

determining a new data rate for transmission of said new queue of packets of data, wherein said new data rate is lower than said data rate.

8. (Original) The method as recited in claim 7 further comprising:

determining a new duration for use of said determined new data rate for transmissions of the packets of data based on the arrangement of said packets of data in said new queue.

9. (Original) In a communication system, a method for determining a data rate for reverse link communication from a mobile station to a base station comprising:

determining packets of data for transmission from the mobile station for a number of communication services;

determining a transmission deadline of each of said packets of data;

arranging the packets of data in a number of queue arrangements for transmission in accordance with said determined transmission deadline;

determining a number of data rates for transmission of the packets of data based on the number of possible queue arrangements.

10. (Original) The method as recited in claim 9 wherein said number of determined data rates include a required data rate, and at least one congestion level data rate.

11. (Original) The method as recited in claim 9 further comprising:

communicating said number of data rates from said mobile station to said base station.

12. (Original) The method as recited in claim 9 further comprising:

determining duration for use of each of said determined number of data rates for transmissions of the packets of data based on the arrangement of said packets of data in said queue.

13. (Original) The method as recited in claim 12 further comprising:

communicating said determined duration from said mobile station to said base station.

14. (Original) The method as recited in claim 9 further comprising:

determining whether available resources allows for allocation at said base station for transmission from said mobile station at least one of said number of data rates.

15. (Original) The method as recited in claim 14 further comprising:

indicating to said mobile station when said determining available resources allows for allocation at said base station for transmission from said mobile station at least at one of said data rates.

16. (Original) In a communication system, an apparatus for determining a data rate for reverse link communication from a mobile station to a base station comprising:

means for determining packets of data for transmission from the mobile station for a number of communication services;

means for determining a transmission deadline of each of said packets of data;

means for arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline;

means for determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the transmission deadline for each of said packets of data.

17. (Original) The apparatus as recited in claim 16 further comprising:

means for communicating said data rate from said mobile station to said base station.

18. (Original) The apparatus as recited in claim 16 further comprising:

means for determining duration for use of said determined data rate for transmissions of the packets of data based on the arrangement of said packets of data in said queue.

19. (Original) The apparatus as recited in claim 18 further comprising:

means for communicating said determined duration from said mobile station to said base station.

20. (Original) The apparatus as recited in claim 16 further comprising:

means for determining whether available resources allows for allocation at said base station for transmission from said mobile station at said data rate.

21. (Original) The apparatus as recited in claim 20 further comprising:

means for indicating a congestion level alert to said mobile station when said determining available resources disallow for allocation at said base station for transmission from said mobile station at said data rate.

22. (Original) The apparatus as recited in claim 21 further comprising:

means for dropping at least a packet of data of said packets of data in said queue to determine a new queue of packets of data;

means for determining a new data rate for transmission of said new queue of packets of data, wherein said new data rate is lower than said data rate.

23. (Original) The apparatus as recited in claim 22 further comprising:

means for determining a new duration for use of said determined new data rate for transmissions of the packets of data based on the arrangement of said packets of data in said new queue.

24. (Original) In a communication system, an apparatus for determining a data rate for reverse link communication from a mobile station to a base station comprising:

means for determining packets of data for transmission from the mobile station for a number of communication services;

means for determining a transmission deadline of each of said packets of data;

means for arranging the packets of data in a number of queue arrangements for transmission in accordance with said determined transmission deadline;

means for determining a number of data rates for transmission of the packets of data based on the number of possible queue arrangements.

25. (Original) The apparatus as recited in claim 24 wherein said number of determined data rates include a required data rate, and at least one congestion level data rate.

26. (Original) The apparatus as recited in claim 24 further comprising:

means for communicating said number of data rates from said mobile station to said base station.

27. (Original) The apparatus as recited in claim 24 further comprising:

means for determining duration for use of each of said determined number of data rates for transmissions of the packets of data based on the arrangement of said packets of data in said queue.

28. (Original) The apparatus as recited in claim 27 further comprising:

means for communicating said determined duration from said mobile station to said base station.

29. (Original) The apparatus as recited in claim 27 further comprising:

means for determining whether available resources allows for allocation at said base station for transmission from said mobile station at least one of said number of data rates.

30. (Original) The apparatus as recited in claim 29 further comprising:

means for indicating to said mobile station when said determining available resources allows for allocation at said base station for transmission from said mobile station at least at one of said data rates.

31. (Previously Presented) An apparatus for determining a data rate for reverse link communication from a mobile station to a base station comprising:

a processor in the mobile station for:

determining packets of data for transmission from the mobile station for a number of communication services;

determining a transmission deadline of each of said packets of data;

arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline; and

determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the transmission deadline for each of said packets of data.

32. (Previously Presented) The apparatus as recited in claim 31 further comprising:
a transmitter for communicating said data rate from said mobile station to said base station.

33. (Previously Presented) The apparatus as recited in claim 31 wherein the processor is further configured to determine a duration for use of said determined data rate for transmissions of the packets of data based on the arrangement of said packets of data in said queue.

34. (Previously Presented) The apparatus as recited in claim 33 wherein the transmitter is further configured to communicate said determined duration from said mobile station to said base station.

35. (Previously Presented) The apparatus as recited in claim 31 wherein the processor is further configured to determine whether available resources allows for allocation at said base station for transmission from said mobile station at said data rate.

36. (Previously Presented) The apparatus as recited in claim 35 wherein the base station is configured to indicate a congestion level alert to said mobile station when said determining available resources disallow for allocation at said base station for transmission from said mobile station at said data rate.

37. (Previously Presented) The apparatus as recited in claim 36 wherein the processor is further configured to drop at least a packet of data of said packets of data in said queue to determine a new queue of packets of data; and determine a new data rate for transmission of said new queue of packets of data, wherein said new data rate is lower than said data rate.

38. (Previously Presented) The apparatus as recited in claim 37 wherein the processor is further configured to determine a new duration for use of said determined new data rate for transmissions of the packets of data based on the arrangement of said packets of data in said new queue.

39. (Previously Presented) A computer readable medium for determining a data rate for reverse link communication from a mobile station to a base station, encoded with a computer program, comprising:

code for determining packets of data for transmission from the mobile station for a number of communication services;

code for determining a transmission deadline of each of said packets of data;

code for arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline;

code for determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the transmission deadline for each of said packets of data.

40. (Previously Presented) The computer readable medium as recited in claim 39 wherein the computer program further comprises:

code for communicating said data rate from said mobile station to said base station.

41. (Previously Presented) The computer readable medium as recited in claim 39 wherein the computer program further comprises:

code for determining duration for use of said determined data rate for transmissions of the packets of data based on the arrangement of said packets of data in said queue.

42. (Previously Presented) The computer readable medium as recited in claim 41 wherein the computer program further comprises:

code for communicating said determined duration from said mobile station to said base station.

43. (Previously Presented) The computer readable medium as recited in claim 39 wherein the computer program further comprises:

code for determining whether available resources allows for allocation at said base station for transmission from said mobile station at said data rate.

44. (Previously Presented) The computer readable medium as recited in claim 43 wherein the computer program further comprises:

code for indicating a congestion level alert to said mobile station when said determining available resources disallow for allocation at said base station for transmission from said mobile station at said data rate.

45. (Previously Presented) The computer readable medium as recited in claim 44 wherein the computer program further comprises:

code for dropping at least a packet of data of said packets of data in said queue to determine a new queue of packets of data;

code for determining a new data rate for transmission of said new queue of packets of data, wherein said new data rate is lower than said data rate.

46. (Previously Presented) The computer readable medium is recited in claim 45 wherein the computer program further comprises:

code for determining a new duration for use of said determined new data rate for transmissions of the packets of data based on the arrangement of said packets of data in said new queue.

47. (New) The method as recited in claim 1, wherein updated information relating to the queue length and packet delay deadlines are available at a mobile station.

48. (New) The method as recited in claim 1, wherein a resource manager allocating the negotiated Quality of Service is performed at the base station.